

**ORAL ARGUMENT NOT YET SCHEDULED**

Nos. 16-1105, 16-1113, 16-1125, 16-1126, 16-1131, 16-1137, 16-1138, 16-1146

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**IN THE UNITED STATES COURT OF APPEALS  
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

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NORTH AMERICA'S BUILDING TRADES UNIONS,

Petitioner,

v.

OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION, UNITED STATES  
DEPARTMENT OF LABOR,

Respondent.

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On Petitions for Review of a Final Rule of the Occupational Safety & Health  
Administration, U.S. Department of Labor

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**FINAL REPLY BRIEF FOR PETITIONERS-INTERVENORS  
CHAMBER OF COMMERCE OF THE UNITED STATES OF  
AMERICA, THE STATE CHAMBER OF OKLAHOMA, AND THE  
GREATER NORTH DAKOTA CHAMBER OF COMMERCE**

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**RULES**

*Occupational Exposure to Respirable Crystalline Silica;*

*Final Rule*, 81 Fed. Reg. 16,286 (Mar. 25, 2016)..... 3, 6, 7, 8

**GLOSSARY**

Chambers Br.	Brief of U.S. Chamber of Commerce, et al.
Industry Br.	Brief of Industry Petitioners
JA	Joint Appendix
$\mu\text{g}/\text{m}^3$	Micrograms per cubic meter of air
NIOSH	National Institute for Occupational Safety and Health
OSHA	Occupational Safety and Health Administration
OSH Act	Occupational Safety and Health Act of 1970
OSHA Br.	Brief of the Occupational Safety and Health Administration
PEL	Permissible exposure limit
Silica Rule	<i>Occupational Exposure to Respirable Crystalline Silica; Final Rule</i> , 81 Fed. Reg. 16,286 (Mar. 25, 2016)
Union Br.	Brief of North America's Building Trades Unions, et al.

## INTRODUCTION

Since 1971, the federal government has regulated workplace exposure to silica by imposing limits of 100  $\mu\text{g}/\text{m}^3$  for general industry and 250  $\mu\text{g}/\text{m}^3$  for construction and shipyard industries. During that time, silicosis deaths nationwide have plummeted, falling from a high of 1,065 deaths in 1968 to just 105 deaths in 2015. As OSHA acknowledges, moreover, many of those deaths occurred because the workers were exposed to silica at levels *higher* than OSHA standards permit—because they either involved older workers exposed before 1971 or younger workers exposed in violation of OSHA standards. In short, given that 2.3 million workers are regularly exposed to silica, the appropriate reaction from OSHA to the evidence presented should have been a recognition of the success it has achieved and a renewal of efforts to ensure compliance with the existing standards.

But that is not the conclusion OSHA drew. Instead, OSHA's rule imposes new, burdensome regulations that will cost *billions* of dollars yet deliver few, if any, benefits. To defend its Faustian bargain, OSHA adopts a two-fold strategy. First, it seeks "extreme deference," arguing implausibly that OSHA has virtually unfettered discretion in this area. Second, and relatedly, OSHA asks this Court to overlook the absence in the record of empirical evidence that workers are suffering significant harms because of the prior silica limits.

The Court, however, cannot abdicate its responsibility to scrutinize OSHA's actions. Under this Court's precedents, it must engage in a "stringent" review of OSHA's conclusions, demanding, in particular, empirical evidence that the prior silica regime is causing "significant harms." OSHA resists such scrutiny, of course, because it will reveal that OSHA dramatically lowered silica limits with unreliable and inadequate empirical support—only epidemiological studies based on a hypothetical worker's continual exposure to silica over 45 years—and without ever identifying a threshold at which silica exposure begins to cause harm. No amount of judicial deference (extreme or otherwise) can overcome this lack of evidence. The rule should be vacated.

## ARGUMENT

### **I. OSHA Inappropriately Seeks an Overly Deferential Standard.**

Recognizing the hurdles it faces, OSHA attempts to escape meaningful judicial review. OSHA asserts that it is entitled to "an extreme degree of deference" when the Court is reviewing the agency's evaluation of "scientific data within its technical expertise." OSHA Br. 20 (quoting *Nat'l Mining Ass'n v. Sec'y, U.S. Dep't of Labor*, 812 F.3d 843, 883-84 (11th Cir. 2016)). That is not this Circuit's law, and for good reason. This Court affords substantial deference only to its review of agency actions under the Administrative Procedure Act, *see Kennecott Greens Creek Mining Co. v. MSHA*, 476 F.3d 946, 952 (D.C. Cir. 2007),

and even then there are important exceptions. Such deference follows from the statutory text: the “standard of review under the [APA’s] arbitrary and capricious test is only reasonableness.” *Id.* at 954; *see also Nat’l Mining Ass’n*, 812 F.3d at 865 (same).

This Court’s review under the OSH Act is more “stringent,” *Nat’l Oilseed Processors Ass’n v. OSHA*, 769 F.3d 1173, 1178 (D.C. Cir. 2014), because OSHA’s conclusions must be “supported by *substantial evidence* in the record considered as a whole,” 29 U.S.C. § 655(f) (emphasis added). Thus, the Court must “take into account not just evidence that supports the agency’s decision, but also countervailing evidence.” *AFL-CIO v. OSHA*, 965 F.2d 962, 970 (11th Cir. 1992). Specifically, the Court must determine whether OSHA has identified “empirical evidence” of actual risk. *Am. Petroleum Inst. v. OSHA*, 581 F.2d 493, 503 (5th Cir. 1978). The Court thus could never afford OSHA the “extreme” deference it seeks here. As precedent confirms, the statutory text does not permit it.

To its credit, OSHA declines to reassert the incorrect legal positions it took in the rulemaking process. *See* Chambers Br. 9-11. As OSHA now recognizes, it *is* relevant to the Court’s analysis if “the incidence of [an] illness [is] declining,” *see Silica Rule*, 81 Fed. Reg. at 16,290 (JA0006), because such a trend undermines the need for new regulations, *see* 29 U.S.C. § 652(8) (authorizing only “reasonably necessary” standards); Chambers Br. 9. And, OSHA may set a silica standard that



“eliminates or reduces risk to the lowest feasible level,” *Silica Rule*, 81 Fed. Reg. at 16,291 (JA0007), *only* if doing so will “result in greater than *de minimis* benefits,” *UAW v. Pendergrass*, 878 F.2d 389, 398 (D.C. Cir. 1989); *see* Chambers Br. 10. Finally, OSHA lacks broad discretion to “incorporate a margin of safety” below the level at which employees face significant risks, *Silica Rule*, 81 Fed. Reg. at 16,291 (JA0007); it only has leeway to implement a “marginally lower” standard than needed, *Nat’l Min. Ass’n*, 116 F.3d at 528 (emphasis added); *see* Chambers Br. 10.

As a consequence, the Court cannot conduct the type of surface-level review OSHA requests. Whether OSHA proves that “significant risks are present and can be eliminated or lessened by a change in practices,” *Indus. Union Dep’t, AFL-CIO v. Am. Petroleum Inst. (Benzene)*, 448 U.S. 607, 642 (1980) (plurality opinion), is an “important limitation on [OSHA’s] regulatory authority,” *Nat’l Maritime Safety Ass’n v. OSHA*, 649 F.3d 743, 750 (D.C. Cir. 2011). Without real judicial scrutiny, OSHA could seize “unprecedented power over American industry” and “impose enormous costs that might produce little, if any, discernible benefit.” *Benzene*, 448 U.S. at 645. “Stringent” review of OSHA’s findings ensures that OSHA adheres to its statutory charge by regulating only “significant harms.” *Id.* at 646. Where, as here, OSHA ventures beyond the limits set by Congress—imposing billions of

dollars in new regulatory obligations in return for minimal health benefits—the Court should step in.

## **II. OSHA Cannot Overcome the Lack of Empirical Evidence Showing Significant Risks Under the Prior Silica Limits.**

*The Surveillance Data.* There is no plausible, credible empirical evidence showing any “significant harms” resulting from prior silica limits. *See* Chambers Br. 11-16. The most trusted nationwide statistics available—the data from the National Institute for Occupational Safety and Health (“NIOSH”) aggregating the death certificates identifying silicosis as the cause of death—show that silica deaths have plummeted over the past 50 years, dropping from a high of 1,065 deaths in 1968 to just 105 in 2015, a decrease of over 90 percent. And of these deaths, OSHA has not established that they resulted from exposure to silica under prior limits. Chambers Br. 13-14. In the face of such evidence—and lacking any contrary empirical evidence—OSHA had no justification for adopting new, more onerous standards.

OSHA acknowledges that “there has been a significant decline in silicosis mortality since the late 1960s.” OSHA Br. 47-48. It contends, however, that the yearly silicosis deaths are higher than the data show because health professionals frequently misdiagnose or fail to report silicosis deaths. OSHA speculates that underreporting has occurred at “a factor of between 2.5 and 5” or possibly in as high as 86% of all silicosis deaths. OSHA Br. 50 & n.28.

As an initial matter, OSHA's estimates about the extent of silicosis underreporting should be viewed skeptically because, as OSHA has recognized, "[t]here is little empirical evidence describing the extent to which silicosis is underreported as a cause of death." *Silica Rule*, 81 Fed. Reg. at 16,329 (JA0045). But even if OSHA's estimates are correct, they still do not show that "significant harms" exist under the prior regime. Of the silicosis deaths that occurred in recent years, there is little evidence that these deaths were caused by silica exposure at levels below the prior limits. As OSHA admits, "many silicosis deaths reported today are likely the result of higher exposures (both magnitude and duration) [than the previous PELs], some of which may have occurred before OSHA adopted the previous PELs." *Silica Rule*, 81 Fed. Reg. at 16,327 (JA0043). These deaths were primarily older workers exposed *before* 1971 when the silica limits took effect. *See* Chambers Br. 13-14; Comments of the American Chemistry Council Crystalline Silica Panel at 11 (Feb. 11, 2014) ("ACC Comments") (JA2978) ("[A]pproximately 88 percent of silicosis cases confirmed from 1993-2006 in the states of Michigan and New Jersey were first exposed to silica in the six decades before OSHA was created in 1970.") (citing NIOSH, Work-Related Lung Disease Surveillance Report (March 2012)). Most other deaths were younger workers who were exposed to silica in excess of the prior limits. *See* Chambers Br. 14; CDC, Morbidity and Mortality Weekly Report (July 18, 2008) (explaining that "silicosis-

related deaths among young adults” indicate that “intense overexposures to respirable crystalline silica continue to occur despite the existence of legally enforceable limits.”) (cited in ACC Comments at 11-12 (JA2978-2979)).

Even accepting OSHA’s views that the surveillance data is underreporting the number of silicosis deaths, then, OSHA did not produce substantial evidence that its new standards remedy “significant harms.” For example, OSHA estimates that between 262 and 750 silicosis deaths occurred in 2015 and not, as NIOSH reported, 105 silicosis deaths.<sup>1</sup> See OSHA Br. 50 & n.28. But given that there are more than 2.3 million workers regularly exposed to silica, *Silica Rule*, 81 Fed. Reg. at 16,418 (JA0134), and that the vast majority of silicosis deaths (whether 105, 262, or 750) were caused by exposures above prior limits, OSHA did not demonstrate that “significant risks” justify the new rule. See *Chambers* Br. 7-8, 13; *AFL-CIO*, 965 F.2d at 973 n.15.

As a backstop, OSHA argues that the NIOSH data “pertain only to deaths from silicosis” and thus do not affect OSHA’s other significant-risk findings for

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<sup>1</sup> OSHA misleadingly asserts that there has been a “significant uptick” of silicosis deaths recently. OSHA Br. 49 n.27. Silicosis deaths rose slightly from 84 in 2014 (a record low) to 105 in 2015 (the fifth lowest ever recorded)—hardly a reversal of the nationwide trend. Nor have silicosis deaths “leveled off in more recent years.” OSHA Br. 49 & n.27. The number of average annual deaths has fallen steadily since OSHA’s previous standards were implemented, including in 1996-2000 (186 deaths per year), 2001-2005 (164 deaths per year), 2006-2010 (124 deaths per year), and 2011-2015 (98 deaths per year). Centers for Disease Control and Prevention WONDER database, <https://goo.gl/5HCCcS>.

lung cancer and other non-malignant respiratory diseases. OSHA Br. 47, 48 n.24. But the evidence indicates that silica-related lung cancer depends on pre-existing silicosis, *see* Industry Br. 46-48, and, in any event, OSHA's failures as to its other significant-risk findings are well documented, *see id.* at 22-52. Similarly, Union Intervenors' data purporting to show that one union's members continue to suffer generally from "lung disease," Union Br. 7, provide little insight; indeed, the union concedes that it "does not track the prevalence of silica-related disease, or any other disease, among [its] members," Post-Hearing Comments of International Union of Bricklayers and Allied Craft Workers at 1 (June 3, 2014) (JA5280). Further, that "the number of hospitalizations related to silicosis remained constant from 1993 to 2011," OSHA Br. 48 n.24, and that more people are living with silicosis than are dying each year, Union Br. 7, proves little; these numbers, like silicosis deaths, are low, *Silica Rule*, 81 Fed. Reg. at 16,306 (JA0022), and, again, such silicosis cases likely resulted from silica exposure in excess of the prior limits, a problem the new rule does not address, *see supra* 6-7.

At bottom, OSHA contends that these data are irrelevant because OSHA's epidemiological studies are sufficient to establish the significant risks under the prior regime. OSHA Br. 51. That might be true if OSHA were operating on a blank slate. But it is not. OSHA's prior silica limits protected millions of workers for nearly half a century. Chambers Br. 2-3. OSHA would like the Court to believe

that the prior silica regime created an epidemic that had somehow gone undetected for decades. There is no evidence to support that conclusion—let alone substantial evidence. Before imposing billions of dollars on American industry, OSHA needed to identify solid, empirical evidence of a problem in need of a solution. Its failure to do so dooms the rule.

OSHA's Non-Threshold Models. As Industry Petitioners and Intervenors explained, *see* Industry Br. 23-30; Chambers Br. 16-20, OSHA imposed lower silica limits without ever identifying a threshold point at which individuals will suffer material harms from silica exposure. But silica, like almost all other substances, has such a threshold point. Because OSHA refused to identify this threshold or incorporate the possibility of such a threshold into its analysis, its significant-risk estimates, which depend entirely upon “non-threshold exposure-response models,” are unreliable.

OSHA, in response, tries to have it both ways. OSHA first contends that “there is considerable scientific uncertainty about whether there is a threshold below which silica exposures will not cause any adverse health effects to any exposed worker.” OSHA Br. 36. But OSHA does not seriously defend this claim. Indeed, OSHA concedes that there are low levels of “ambient exposures to silica, estimated between 1 and 3  $\mu\text{g}/\text{m}^3$ , [that] do not cause illness among the general population.” OSHA Br. 36 n.17. And OSHA's and the Union Intervenors' toxic-

tort cases do not refute the science of thresholds, as these cases deal solely with issues of contributory negligence under state law. *See* OSHA Br. 41 n.20; Union Br. 12-13; *see, e.g., Rost v. Ford Motor Co.*, 2016 WL 6876490, at \*11 (Pa. 2016) (recognizing “scientifically irrefutable testimony” regarding the “threshold level of exposure to asbestos for developing mesothelioma”). Thus, there is undoubtedly *some* threshold below which silica exposures cause no harms.

In the alternative, OSHA argues that “if there is such a threshold, it is likely well below the new PEL of 50  $\mu\text{g}/\text{m}^3$ ” and so its failure to identify such a threshold is harmless. OSHA Br. 36; *id.* at 36-39 (identifying “possible thresholds” below the prior silica limits). But the NIOSH data, as well as additional studies in the record, refute this assertion too. *See supra* 5-9; Industry Br. 25-26; Testimony of Dr. Peter Valberg at 321-22 (Mar. 19, 2014) (“Valberg Testimony”) (JA4295-4296). Considerable evidence therefore shows that the silica threshold for harm is *above* the prior silica limits.

Even if OSHA’s studies are accepted, however, they are of little value because OSHA relied on non-threshold models to calculate risk, *Silica Rule*, 81 Fed. Reg. at 16,351 (JA0067). In other words, OSHA cannot salvage its risk estimates by identifying such studies because its “exposure-response coefficients and resulting risk estimates are predicated on the assumed absence of a threshold.” ACC Comments at 116 (JA3083). OSHA’s refusal to incorporate thresholds into

its models distorts all its significant-risk conclusions. *See id.*; Valberg Testimony at 322-23 (JA4296-4297) (“[T]he bottom line is that the OSHA exposure response modeling focuses on linear, no-threshold models .... [N]eglecting to include exposure response models in the uncertainty analysis allows [OSHA] to make a statistical significance determination that may in fact be flawed[.]”). OSHA needed to recognize the possibility of thresholds at the rulemaking stage and incorporate this into its analysis. It is too late to do so now.

### **CONCLUSION**

For the foregoing reasons, the Court should grant the petitions and vacate the Silica Rule.

Respectfully submitted,

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**CERTIFICATE OF COMPLIANCE**

Pursuant to Federal Rule of Appellate Procedure 32(a)(7)(C) and D.C. Circuit Rule 32, as modified by the Court's October 13, 2016, briefing order granting Petitioners-Intervenors 2,500 words, this brief complies with the applicable type-volume limitations because it contains 2,491 words, excluding the parts of the brief exempted by Rule 32(a)(7)(B)(iii).

This brief complies with typeface requirements of Rule 32(a)(5) and the type-style requirements of Rule 32(a)(6), because it has been prepared in a proportionally spaced typeface using Microsoft Word in Times New Roman 14-point font.

March 23, 2017

/s/ William S. Consovoy  
William S. Consovoy

**CERTIFICATE OF SERVICE**

I hereby certify that all counsel of record who have consented to electronic service are being served today with a copy of this document via the Court's CM/ECF. All parties in this case are represented by counsel consenting to electronic service.

March 23, 2017

/s/ William S. Consovoy  
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